

**ABSTRACT OF THE DISCLOSURE****METHOD AND APPARATUS FOR CHARACTERIZING SHARED CONTACTS IN  
HIGH-DENSITY SRAM CELL DESIGN**

5

Test structures are provided for accurately quantifying shared contact resistance. The test structures are built based upon an actual memory cell, which is self-aligning to allow shared contact chains through an array of test cells. A main array of test cells is built to provide a chain of shared contact resistance. Using the main array of test cells, a resistance in the shared contact chain may be measured. Supplemental arrays of test cells is built to provide a chain of poly side resistance, a 10 chain of island side resistance, a chain of island connection line resistance, and a chain of poly connection resistance. A tester measures resistance using the test structures and uses the values to accurately determine shared contact resistance.